#### **Session 1**

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Introduction to Student Growth Percentiles in Virginia

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Old Dominion University

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Dr. Cave: We're gonna get started now on our next, our next session. And I want to, it's my great pleasure to have Dr. Joanna Garner here to really help us understand using student growth percentiles. The state has developed a data source for you for all school divisions that will enable you to monitor the progress your students are making in learning at the division level. It's relatively new, and we have been conducting workshops now for Joanna.

Dr. Garner: Since October.

Dr. Cave: Since October on student growth percentiles and how to use them. And we're kind of curious, how many of you all have already been to one of these workshops? Wow not that many, so this is, this is very relevant for you. You know our whole theme of this training right now for this day, these two days is progress monitoring.

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Dr. Cave: And when we sit around the table the coaches and Susie and Wayne and myself and Doug, and talk about well what do we mean by progress monitoring? There is so many levels of it. We call it the big P and the big M in terms of getting, you can look at division progress, you can look at school progress, you can look at grade progress, you can look at classroom progress, you can look at groups of students progress. You can look at individual student progress. What do you do, how do you do that, how to use the data? What are you decision points? What are decision points? How do you come up with knowing what you're gonna do once you have the data. So I was very pleased that we could begin with a big picture of what progress monitoring looks like at the division level. I need to tell you that Dr. Joanna Garner has is a research assistant professor with the Center for Educational Partnership with Old Dominion University. And she has been our trainer, VDLE's trainer, to help school divisions understand how to use the data that we are making available to them.

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Dr. Cave: On the website, she's been training in this since October. She's been working with our executive director of research, Deborah Jonas to develop this model. And we're so fortunate that when we called and said can you come and speak with us please. She said, "Yes I have the time I'm able to do that." She has developed the system, developed the model. She has worked now not only as a trainer throughout the state, but on call when school divisions say please come help us, she's available to do that. Her background is actually psychology, and that's what her doctorate is in. And I figured that out because she and Wayne were huddled over there in the corner having this intense discussion about high school psychologists, found each other. So we're more than happy to have you here. I'm happy to know that, it sounds funny, but I'm actually happy to know that not many of you have been exposed to this before.

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Dr. Cave: Because this is another tool available to you and as you look at the benchmarks you'll see that one of the components is about evaluation. And in order to have effective evaluation, you need to decided well what are we going to measure? What kind of data do we have available? How can we get it as it's being made available to us? And the state is actually making this data available to you. So if you're ready.

Dr. Garner: Yep.

Dr. Cave: We can go. Super.

Dr. Garner: Thank you Cindy. Can everybody hear me okay? Yeah, you can hear me probably can't see me very well. Right. But I move around a lot, so hopefully you will be able, be able to see me at some point. Good morning everyone. Morning. It's great to be with you today, I'm really thrilled to learn more about the Virginia Tiered System of Supports, and also to introduce to you two of the concepts of student growth percentiles, which is a new data point that the Virginia Department of Education has available to you.

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Dr. Garner: It was rolled out very late in the fall, some of you may have taken a look at your, your data. Some of you may not have. So one of the things we're gonna do today, is just become more familiar with what the student growth percentile is, and what it's not. How many of you have heard of the student growth percentile? Okay, great. So many people have heard of it. How many of you a quick show of hands again, attended one of the workshops that we did in October? Okay, so I, I know who to call on now when I have questions. Or maybe you can facilitate the conversations in the

activities at your tables. What we're gonna do today, this is a compressed version of the workshops that I did in October. And we also did a webinar in November that some of you may have been tuned into as well. We're gonna start with a, a brief introduction that gives you an idea of why and how Virginia has decided to choose the student growth percentile as a measure of student progress in the state.

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Dr. Garner: And then we have four mini-sessions, I call them sessions here, they're really kind of mini-sessions that deal with the student growth percentile. With different, from different angels. From the 50,000-foot level, the sort of division level. Right down to the individual level. What does that mean? When we talk about progress, and we talk about measuring progress in reading and math. So what we're gonna do is we're gonna talk about what growth percentiles are, and where they come from. And I'm gonna give you a conceptual overview. Some of you may be very familiar with statistics, and psychometrics, and if you are I'm very happy to have more detailed conversations with you during lunch or during break. I know that some of you may not be as familiar with the ideas behind the student growth percentile. But maybe you know we'll by the end of today you'll have an idea of what it is conceptually, so that you can explain it to your colleagues when you go back to your division.

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Dr. Garner: And you can answer questions from teachers, principals, central office people, school board members, parents that may have questions about it. Because this is such a large group, I know we have a couple of microphones set up there, but if you can just dig through the handouts that you have, and find the notepad. There was a thin notepad that was your seat when you sat down. If you can find that, if you can't find that you can scribble on the coaster, the napkins, anything that you have there. But if you have questions as we go through the different sessions, the mini sessions that we have. Please feel free to write down t hose questions, and the at the end and the beginning of each mini-session we'll try and gather up those questions and I'll see if I can address some of those questions for you. So let's begin with an overview of what Virginia has elected to do, and why. What we're going to do today is to try to increase your knowledge of the student growth percentile.

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Dr. Garner: And where it comes from. And understand particularly in the context of response to intervention, or the tiered system of supports, how it adds one more tool in your toolbox in terms of data informed decision making. Is it the answer? Certainly not.

Is it one answer, or one more piece of information that you may have that you can use for certain, to answer certain questions? Perhaps, and that's something that we're gonna talk about today. Just to give you a little bit of, um, background in terms of where this is coming from. You may be familiar with the Colorado Model, the value added system. What Virginia has decided to do is as part of the state fiscal stabilization fund that you may know as recovery funds. One of the requirements was that the state had to develop and use a growth measure. Okay.

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Dr. Garner: And so what Virginia has decided to do is to use the student growth percentile as that measure. And not only were they required, was Virginia required to develop this, and has been working with Damien Betebenner to develop this and use this with the SOL scores, but to provide that information to school divisions, and to provide it in reading and math. And to provide it to teachers of students in reading and math. How many of you have been involved in your school division's process of using the match schedule collection? Anybody involved in that process? So one of the things that was part of this whole endeavor was to create a way for school divisions to report out which students are connected with which teachers. And I know that's certainly no, no mean feat. It's a really huge tax for school divisions to do, and that's part of, this is part of that data acquisition process. So that the information that's surrounding growth percentile can be accurate as possible.

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Dr. Garner: Understand where does this information come from. So what does a, what does a growth percentile mean? How do we, how do we derive it from the SOL scale score? And then the second one we're going, the second session we're going to look at different levels. Most of the states that use the student growth percentile model have elected to divide the distribution into three pieces, low, typical or high. Or high, low, moderate and high. Virginia has done the same kind of thing, so we're going to be thinking about the different levels, and then in session 3 that helps us think about well how could we display? How could we capture or represent groups of students depending on these different levels? You'll be, we'll be talking about the business rules, there are some rules that are associated with the calculation of this growth percentile. Such that you may or may not have data for different students by the end of today you'll have those business rules off the top off your head.

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Dr. Garner: And you'll know who am I going to see growth data for, and who won't I see growth data for? And then we're going to analyze some examples of growth information as it would be provided to you. It says the Fall 2011 student growth percentile report format, that's that big sheet. I'm responsible for most of the handouts for today I have to say, you have a big pile of handouts that you collected when you came in, and this is something that we'll be looking at in the second session. Then after lunch we'll be thinking about some of the ways that school divisions may elect to look at this data. You may want to pull the data and look at it by different groups of students, if you do choose to do that there may be some considerations in terms of why would you want to do that? For which students would you want to do that? Are the data that you have, are they representative of the students in your division, the students that you want to make decisions about?

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Dr. Garner: So we'll think about that. And then the final session, we're gonna be thinking about, well how do we take this information now that you've been trained, now that you know about student growth percentiles, who in your division may have questions for you? And what kinds of questions may they have? Who in the division may you go to as a resource, may you want to train to be a specialist or who is already a specialist in data use. And how might they interact with this conversation about student growth percentiles? Okay. Okay, so the focus for today, we get a lot of questions about the student growth percentile in terms of teacher evaluation. All right, that's something that is definitely, the school divisions that I work with, that's definitely something that's on their minds. And today we're just gonna draw a box around that conversation, and then leave it to one side. Okay, really what we're focusing on today is understanding the data. The board of education has provided some guidance in terms of student growth percentiles and evaluation.

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Dr. Garner: And I'm going to give you some resources, some mailboxes that you can send questions to if you have questions about that. But today I want you to feel comfortable with the data, rather than engaging in conversations about evaluation. So these are, this is on the handout that you have, if you have specific questions about student growth percentiles there is a mailbox that's been set up to receive and respond to those questions. If you have questions about the teacher performance evaluations, and how growth measures may intersect with that, there is the licensure at DOE mailbox, and then for the data or math schedule collection, if any of you are involved in that, or have questions about that there is the box for that. Okay. So lets begin. That

was a long introduction right. Lets begin, let's talk about student growth percentiles, what they are, and where they come from.

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Dr. Garner: Is all learning objective? I would hope that by the end of this mini-session that you'll be able to explain in conceptual terms where these things come from. Okay. So beginning last Fall, how many of you have seen growth data within your division? Anyone? A few people, oaky. Beginning very late fall of last year, the DOE released the data to the school divisions for reading and math in fourth through eighth grade for reading, and fourth through eighth grade and Algebra I thorough ninth grade for math, the growth data. It's a different way of thinking about student performance. We're just gonna make that differentiation hopefully clear right now. We're used to thinking about the SOL scores in terms of proficiency, are students proficient? Are they in the advanced proficient? Are they failing to meet proficiency?

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Dr. Garner: And the growth percentile, the emphasis is different. It's on progress. How far has the student come? So let's take an example, and you're gonna see lots of examples as we go through these mini-sessions. Here we have two students, students A and B, and they have a third grade and a fourth grade math SOL score, I like to present good news if I'm gonna be, we're gonna be going up here. So here I have two students, student A goes from a 432 to a 450, and student B goes from a 318 to a 450. And so the question is, which student has made the most progress? Student B, okay. But if I didn't have that grade three SOL scale score, and I was there let's say their grade five math teacher, I would look at their grade four scale score, and go well they look kind of the same. Right.

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Dr. Garner: And that begs the question you know, can we compare these two students to each other. We can do, we can compare them to each other and we can say their grade four scale scores were the same. Can we compare their growth to one another, now they start to look a little bit different from one another. Perhaps even a more fair comparison as we go forward across time is not necessarily to compare student A and student B, but student A over time compared to other students in the state who look like student A. And compare student B over time with other student in the state who look like student B. So essentially what you're doing, is you're saying I'm going to look at me, look at my scores and look at them over time. But don't compare me to the student that's sitting next to me, or the student down the hall. Now compare me across the

state to other students who statistically look the same, or look very similar to me. Now how did I do?

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Dr. Garner: So it's a different, it's a different benchmark. It's a different way of thinking about student progress. How many of you are parents, or grandparents? Many of us are parents or grandparents. How many of you have taken your child to the pediatrician's office, especially when they were younger right. Usually when I talk about this, I say how many people have taken other people's children to the pediatrician's office right? Yeah, okay. So you may have seen a chart that looks little bit like this, this is a growth chart, and actually this is borrowed from the CDC website, this is a growth chart for boys and it graphs their weight by age. And we can use this growth chart analogy, it's not a perfect analogy, and we'll talk about how it's not perfect, but we can use it as an analogy for student growth percentile. So what does it do? The physician looks at your child, they weigh them, they you know measure their height, their weight, their circumference when they're little.

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Dr. Garner: And they say okay well your child, my son is five so here is my five year old son, here is height, here's his weight, and here's where he falls in relation to a group of other children across the nation, and you can compare. And see basically rank him, and say this is where he falls. And so what we can do, do I have a pointer on this? I'm afraid to press any buttons in case, oh there we go, okay. We can say, how do you, how do you rank? I can give you a percentile. I can give you a percentile between one and ninety-nine that tells me something about your score compared to other children that you're being compared to. Okay. So, percentiles always go from one to ninety-nine. Growth percentiles, student growth percentiles are no different.

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Dr. Garner: They always go from one to ninety-nine, somebody will always have a growth percentile of one, and somebody will always have a growth percentile of ninety-nine. And what does it mean? It tells me the percentage of children in that group that scored lower than me. Does it tell me what they scored? No, it just tells you this is where you're at. Okay, so you can divide that up and we can look at the fifth, I've got it in fives up here, five, ten, and then twenty-five, fifty, seventy-five, ninety, and ninety-fifth percentile. Okay. So this is again, we can use this example, we can say, okay here is a nine-year-old boy, he weighs 67 pounds, he's at the fiftieth percentile. So what does that mean, he weights more than fifty percent of the children that were used the data

was gathered from them, to create this comparison. Okay. Now, remember I said it's not a perfect analogy.

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Dr. Garner: It's not a perfect analogy. So when the CDC goes and creates these growth charts, what initially what they did, and that's I think this is beginning to change, but initially what they did is they took all the two year olds that they could find and they measured their height, weight, and circumference. And then took a group of three year olds, and then took a group of four year olds, and then a group of five year olds all the way up. Now the same child couldn't be measured at two, as at five, as at ten, as at fifteen, they're different children okay. This is where the analogy breaks down. Because for the student growth percentile imagine that you could have your child accessed weighed, their height measured, and then the comparison is all the children in this state of Virginia who not only score the same as them today, but they did last year. And the year before, and the year before that, and the year before that.

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Dr. Garner: Essentially it's like having the toddler that you're at the 18 month check-up, or their two year check-up and their height and their weight is compared to all the children who were the same all the way back and had the same birth weight even. Okay. That's, that's the, where the analogy of the student growth percentile is different, or the example is different from the CDC. So the student growth percentile in Virginia is using this historical data set that we have on SOL scores, and it's going back up to seven years. If that data is available, and saying now how did I do compared to other students in the state who don't just look the same as I do now, but they looked the same last year, and the year before, and the year before that. Does that make sense, I'm seeing a few heads and then I'm seeing a few. I know it's statistics, and it's early in the morning, and you know, hang in there okay.

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Dr. Garner: So lets look at this over time. Lets think about this perhaps from now running forward into the future. And then we'll think about what it might look like when you really run the model, because when you run the model it's always historically based. So it's from here back in time. Lets say we have a child at the third grade level, and they score a 425. Do they pass the test? Yeah, they passed the test, they're gonna pass proficient. Are they the only child in the state that scores a 425? No. There is tens of thousands of other children that also do that, okay. Let's say again, good news here, so we're at fourth grade now and the child scores a 455, and this is hypothetical

data of course. So do other children in the state, but not all the children in the state that scored that 425 initially. Okay. So there is going to be a spread of scores at the fourth grade level.

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Dr. Garner: And we can say, okay, so what's happened here when you go from third grade to fourth grade? Our example students in the solid dot there, and the other students that were in that original sort of group with the same score and now they've now found out okay. So now how does this child rank, what's their growth percentile? 82. So what does that mean? Right, they scored at the fourth grade level, their score was higher than 82% of the students in the state of Virginia that had the same score history as they did. Is that good? Yeah. Right, they had a good result. In that sense. The model runs historically, but bare with me, we're gonna think about this as if it's running you know into the future.

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Dr. Garner: So what's happening here at fifth grade now we're following one student's progress. Okay, so this student, now at the fifth grade level, what's their student growth percentile? So what does that mean? Lets put it in a sentence, okay. Who can use their own words and put it in a sentence? So it means that child outperformed 46% of the students in the state that had the same or similar score history. Okay. Again, we can run this forward but bare in mind, really in actuality it works historically it works backwards. But imagine now this child is now in middle school, so now they're taking sixth grade, they've taken the sixth grade math test. What's their student growth percentile? 77, see it's good news right.

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Dr. Garner: So they're, now they're outperforming 77% of the students in the state with similar score history, does that make sense? Good, okay, so you'll all pass the quiz later on right? You didn't know there was a quiz? Okay. Again lets look at this different people respond to data and information being presented in different ways, so lets look at this from the perspective of what would it look like if we had lets say we had six students, one, two, three, four, five, six. Okay, six students across Virginia who had the same third grade score, their fourth grade scores diverge. Okay, when we look at what their fourth grade, the growth percentile that's associated with that third to fourth grade shift, what do we notice?

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Dr. Garner: What do you notice? Okay, if you go from a four, it the more divergent the score become, the more divergent the growth percentiles are as well. Okay, so you have two students that go from a, let's say a 400 to a 400, it doesn't matter that it's a 400, it's just that their scores are the same as one another. What do you notice about the growth percentile? It's the same. Okay, now are all these students in the same class? Probably not, are they all in the same school division? Maybe, maybe not, we don't know that. But what we do know is if we were looking at these students, it's possible to look at the ranking essentially and look at the scores, and say okay the more divergent the students scores are going to be, the more divergent their growth percentiles are. Okay, recap and breathe right, we're thinking about statistics.

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Dr. Garner: What have we talked about so far, we've talked about the fact that student growth percentiles just like any other percentile go from one to ninety-nine. That they reflect the percentage of students across the state that performed, that scored lower than any given student with the score. Okay, the student growth percentile is calculated for, it reflects the most amount of historical data that's available, but for any one given year it will reflect the growth percentile that's associated with the change from the previous year to the current year. So third to fourth grade, or fourth to fifth grade. Or fifth to sixth grade. Okay, and then each year the student's percentile is calculated for reading, and for math.

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Dr. Garner: There is no cross pollination there at all, they're all separate, so reading and math. And you're comparing a student to students across the state that have scores that are very similar to one another statistically they look the same. The score histories look the same. Now one question I often get is well does this mean that the student's reference group is going to shrink year after year after year? That was one of my questions when I first was learning about this, well does this mean my son eventually is just going to be compared to the kid next door? No that's not how it works, it's all done historically. So even if you're talking about students who in the seventh and eighth grade years, with the tests in the seventh and eighth grade you're looking at all of the students historically back there. You're still talking about tens of thousands of students, and you're still talking about thousands of students that have that similar score history.

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Dr. Garner: Okay, there is more than you know a million children in the state taking the reading test every year, or taking the math test every year. And so, it reflects that. The initial model when it's run uses the entire state's data. Okay, forgive the artwork, the graphic design work okay. Let's imagine now that I'm a classroom teacher, and I'm looking at four students and lets say I'm a fifth grade teacher, and this is their fourth grade math SOL score that I'm looking at. If I'm looking at this, I'm gonna say well they all got a 460, they all passed the test. They all look the same, on paper just looking at that one piece of information they all look the same. Above their heads they've got their growth percentiles, okay. So now we're starting to use the growth percentile, and say well, you know they kind of performed the same way, but did they come from the same place?

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Dr. Garner: Before to get to that 460? So which student made the most progress to reach that 460? The yellow one, okay so he or she, I think it's a she, outperformed 73% of the students who look the same as she does to get to that 460. Okay, who made the least progress? Right, the purple one. Who had a student growth percentile of 24. So you can see it's, you're starting to just kind of just slightly tease out, you've got the SOL score, now you're saying well how did they get there? What does that, how might that you know influence? How might that determine, well maybe I'll take a second look at this child, especially as we go over time and see what happens to them. Now let's say I have a fifth student joins my class.

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Dr. Garner: And his, their score they also got a 460, I know this never happens but you know go with it for the example okay. And then I have the students growth percentile is also 50. So based on what you now understand about the growth percentile and the way that the model works, what could I conclude about these two students in terms of their scores? Right, historically they would have looked the same. Okay. So they must have similar score histories, they got, they both got the same growth percentile that's associated with their most recent score and the previous one. Great everyone still with me? I say that then I show you a graph, just mix it up a little bit. One of the consequences of looking at this and distinguishing between growth and achievement or growth and proficiency, is that you can dissociate between the two.

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Dr. Garner: And Damien Betebenner, if any of you have ever seen some of the work that he's been doing with Colorado, eh does this at the school level. In Virginia, we're

just going to stick to the student level right now. But you can have a dissociation between proficiency and growth. So you can have somebody, a student that has high growth, no wait lets see. Proficiency and high growth, proficiency and low growth, lacks proficiency, but shows high growth. Lacks proficiency, and shows low growth. Okay. So if you think about that in terms of progress monitoring, it's not like you're always going to see the highest progress or the most progress associated with the highest achieving kid. That assumption is no longer valid. Okay, lets look at these examples here then, lets think about we've got student W who goes from a 430 to a 550.

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Dr. Garner: So what about, what can we say about their fifth grade status? Proficient? Growth, high, low? High growth, okay student X now they've gone form a 415 to a 420, proficient? Yep, they're proficient. Growth? Lower growth. Okay. So you may now we've got a student at the 420 level, now we may just take a second look at that student just to see what might be going on. Then we have student Y who goes from a 320 to a 300, are they proficient? No, so we're concerned about them anyway, but look at their growth. Right, low growth. Okay. Then we have another student, student Z, or student Zed, as I would say. Student Zed goes from a 275 to a 380, are they proficient? But look at their growth right.

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Dr. Garner: So if you're seeing pockets of this going on you've got the differentiation between proficiency and growth that may be helpful. Is it going to answer all the questions? No, is it maybe gonna direct you towards some additional questions? Perhaps. Okay, okay lets get a little bit more active now, where's, where's Susie, Susie Truelove? She's right there, Susie look we thought of you, you're the example student. [Laughs] We have an example student we have Susie okay. Lets do this one together, and then we'll break into table groups, and we'll go through the activity. Here we have Susie, we have her third grade, her fourth grade, and her fifth grade scores. So, are we concerned about Susie?

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Dr. Garner: Yeah, we have some concerns about Susie, okay. At the third grade level she's at 270, then she's at 300, then 365. How would we describe her fifth grade scaled score? She's not proficient right so we have concerns. Okay she didn't pass the test, what can we tell from her growth percentile of 70? So compared to other students in the state with similar score histories how did she do going from fourth grade to fifth grade? She outperformed 70% of the students in the state with similar score histories okay. So

that's a good thing, so you know what she didn't pass the test, but something good happened. Okay, do we know what? No. Okay, so what have we gained from knowing that her growth percentile was 70 even though her score was 365? She had high growth, okay that's encouraging. Is it enough? No.

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Dr. Garner: Is, its getting there okay. Can we calculate her growth percentile just by knowing her previous scores? No. You know this, now that you know we've talked through the growth percentile but we get that question a lot. You may have people, you start looking at your data and you're looking at it historically going, oh I wonder all right. We don't have, you and your division won't have access to that statewide data set. So you cannot because you don't have that distribution, you don't have the model you can't calculate the growth percentile. Okay. If you look at your, I think it's, is it the yellow sheet? Or the green sheet? The activity packet that you have. Okay, so you have, you have an activity packet here.

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Dr. Garner: Turn to the second page where it says table 2. So we've already gone through the first page together as a group, lets do the second page. And I'll give you a couple of minutes at your table, this is just sort of a quick, just eyeball data. It's sort of like a comprehension check for you. Look at the students' fourth and fifth grade scores in relation to the fifth grade growth percentiles. For the group as a whole, what do you notice about the growth percentiles associated with that shift from fourth to fifth grade? Just real quick one minute at your table just to make sure we're all on the same page.

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Dr. Garner: [Tape Cuts] The fourth to fifth grade scores, just eyeballing the data what do you notice? Anyone. It's getting very quiet. Okay what do we notice, well we notice that third to fourth grade the scores are the same right? Then we notice from fourth to fifth grade the scores diverge. We notice that the students who go from fourth to fifth grade and their scores are still in the lower ranks of these groups of scores, their percentiles are the lower ranks of these groups of children, okay. Does that make sense? A question came up.

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Dr. Garner: So what is this growth percentile accessing, or what is it capturing? Is it capturing all of those grades? Is it capturing fourth to fifth grade? And the answer is,

it's capturing fourth to fifth grade but for whom? For all the students in the state that look the same statistically as any given student here. So is this the whole statewide set? No, we're just saying here is Susie, and now we can see a tiny slice of the other students in the state that look similar to her. And we can see okay well between third and fourth grade she looks the same as they do. But between fourth and fifth grade she doesn't look the same, okay. So from fourth to fifth grade she looked pretty good, okay. And you can see that if the scores, if the SOL scores are ranked lower the growth percentile ranks will be lower.

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Dr. Garner: So it makes sense. Now I'm seeing people going oh, okay. All right. Let's try the next part of the activity, let's look at table three. Now in table three we have Susie, and we have her classmates. Some of her classmates, so we have the third, fourth, and fifth grade scaled scores. And we have scores for Susie, Victor, Keisha, Dante, Jamal, Maya, and Zachery. Okay, I'd like you to look at the questions, questions six through ten there and I'm gonna give you at least five minutes to go through this as a table, as a group and think about this. What's important here is that is two things. One, can you put it into your own words? Can you really answer this in your own words? And two, where are your sticking points?

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Dr. Garner: Okay, where is it that you're still not sure about what this, what this concept is trying to convey. Okay, this is a safe space for everybody. I know that you know there is gonna be a variety of background knowledge, and you k now experience with dealing with statistics and numbers and things like that. So please treat this as a safe space. Let's spend some time going through these questions, and then we'll review the answers as a group. [Tape Cuts] Okay, I'm hearing some really good conversations and really good questions and things coming up. So lets look at the first questions, okay. Let's look at the first part of this, and I understand you know this is a beginning of a conversation. So I'm gonna try and answer some of the questions, there are questions I cannot answer. Often times we raise more questions that we can really answer.

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Dr. Garner: But imagine this is Susie and her classmates. So can we explain to the fifth grade teacher how Susie and Victor achieved the same fifth grade scaled score, but they had different growth percentiles? Now first of all we know that that's possible, right. So how is that possible? Look at their score histories. Are they the same? No. Are

they different? Yeah, so we know that Susie and Victor, the students across the state that they're being compared to are different. Right, it's different slice through that distribution.

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Dr. Garner: Okay, so it is possible, they've got two, their scores will represent, they will reflect their two different score histories that they have. Okay, does Victor's growth percentile of thirty have any relation to Susie's growth percentile of seventy? Did Susie grow twice as much as Victor? No, we can't say that okay. They're based again, the two numbers are not directly comparable to one another, and this is where it's a very different mindset. Its different from saying you know I'm gonna compare this student to this student, cause they're in the same classroom or they came form Ms. So-and-So, or Mr. So-and-So's classroom last year, it doesn't work that way. We're thinking about me especially as a student, compared to all the other students in the state, I'm looking at how I did from this current year to the past year, compared to all the students in the state who statistically look like me.

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Dr. Garner: Okay, so it's a different way of thinking about it. I like, any of you seen the Verizon add where there is the one person there with the gang behind them? Okay, so I try to think about this as, so here is the student, and then there is this invisible distribution or group of students behind them. And where did they fall? Did they fall in the middle, did they fall at the end? Which end did they fall at? That's the comparison that's being made, oaky. How can Susie and Maya have almost the same growth percentile, but different achievement? This is like a flipside of the first question. You look at Susie and Maya's scores, we can see their score histories are different, so Susie and Maya have the same let's see. Susie ahs a 70, Maya has a 65, so relative to other students in the state that statistically look the same as each of these two students, their relative rank was about the same.

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Dr. Garner: Okay, do we get hung up on 65 versus 66 or 64 versus 63? My suggestion would be no. Okay, you it's a general statement about where that student falls in relation to other students that look similar. Okay, now here's a sneaky question, why does Jamal but not Dante have a student growth percentile? Right, so we look at Jamal here, he has two consecutive years of score history, therefore he can have a student growth percentile. This is something I didn't tell you, you may have figured out, you nee

two consecutive years of data in order to have a growth percentile. Okay. Now, sometimes people say well I have students that move around, they're transient.

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Dr. Garner: And you know what I'm in Norfolk so yes we are really super transient in Norfolk, in and out of the state. In and out of the country, that's not the same as saying well my student's move in between schools. If you're in an urban setting often times you get transiency among the same schools, or you know same group of elementary schools in a city. Or even across the state, the transiency rate is relatively low, and so it's still possible to calculate that growth percentile. Because somewhere in the state, if the student's in the state, chances are they're gonna take the SOL test. Okay, I talk about this with school divisions in the tidewater area, and they say well my student was in Germany last year. And I say, well sorry they don't do SOLs in Germany, as far as I know. But you need two consecutive years of score history, two or more. Okay, now should Zachery's teacher be concerned about his performance given his scaled score and his growth percentile? Let's see Zachery, hmm.

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Dr. Garner: Some people say yes, some people are like eh, no. Okay, so he's passing the test each year. He fine, no well we look at his growth percentile okay relative to other students across the state, that look the same as he does historically now he's at the bottom of the pile this year. Okay, do we know why? Do we know because I was just having this conversation over here, is it because he didn't attend school? Is it because his parents got divorced? Is it because, we don't know. All we know is that this is what's happened, so it's describing it's not explaining. It's very important to keep in mind. Okay, now if you look at the next table we're gonna throw in just a little bit more information now. Now you have the growth percentile sin parenthesis at the fourth grade level.

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Dr. Garner: These growth percentiles at the fourth grade level are associated with the change from third to fourth grade. So now we have three years of SOL data, and two years of growth percentile data. And my question to you is, do you notice anything? What do you notice? Are there students that you would be concerned about? If so why would you be concerned about them? Let' spend about five minutes again as table teams, and then we'll come back together and think about the data as a group, as a whole group. [Tape Cuts] Years of growth percentile data, which students are we

concerned about? All of them? Who are we concerned about? Victor, Zachery, okay why are we concerned about Victor? Who said Victor? Somebody said Victor.

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Dr. Garner: Okay.

Not only is he not showing really high growth, I mean 30<sup>th</sup> percentile is not bad, but he's still not achieved proficiency. So he's not having tremendous growth, and he's not achieving proficiency, so that would be a big concern.

Dr. Garner: Right and if you look at Victor's growth from third to fourth grade, it wasn't a great year for him either. Okay, and Zachery, somebody said Zachery. Why are we concerned about Zachery?

Because he was performing in the 85<sup>th</sup> percentile and then went down to the 8<sup>th</sup>. Right so he had a really good year from third to fourth grade, and then he didn't have such a great year from fourth to fifth grade. Now do we know why? No. Okay, but we do know that that's what's happened. Now maybe the next year he's gonna have a great year, maybe the next year he's gonna have a really poor year, and so you start to see over time you know that you can follow some of these kids.

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Dr. Garner: Now, does it supplant all of the progress monitoring, the short cycle assessments, and the curriculum-based assessments that you're doing? Absolutely not, but is it one more tool, one more piece of data that you may have to help you? Maybe. Okay, you're with me so far? Okay. I'm getting a lot of questions about well what is this data going to look like, and what can we do with it? And so I would say that's great because this is where we're going. Okay, so what is the data going to look like, and what could you, what steps could you take to look at this data. This is session two, so we're gonna do session two through till lunch. Yes lunch is on the horizon folks, hang in there with me. Okay. So let's go to session two, what are we gonna do this session? Let me recap. What did we do last session?

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Dr. Garner: We thought about what the growth percentile is, conceptually where does it come from. And actually I want to throw in, I'll just throw in something that somebody asked me as I was walking around, the growth percentile statistical model only includes prior achievement. So these students when you get the student growth percentile, it's

not adding in to the calculations of the growth percentile, disability status, LEP status, anything like that. It's just prior achievement. So that's a big you know, just a point of clarification that I tend to get, now does that mean that you can go ahead and start to look at what you're growth percentiles look like for different groups of students? You could do, and this is how you could do it. Okay, this is what we're gonna, what we're gonna move into now. So, we're gonna articulate the, what our video is calling the business rules, or the reasons or rules why you may or not may not see growth data for your students.

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Dr. Garner: For some of your students. We're going to think about what the growth percentile levels are, and that's important if you're thinking about aggregation of data. And then analyzing some examples of the growth percentiles information as it would be available to you if you have access to the SSWS system. Okay, so when I move to Virginia from Pennsylvania, I'd been working with some school divisions on and off In Virginia, but you guys do things a little bit differently in Virginia. Especially with regard to which tests, especially math tests, students take when they go throughout their testing career. So we're gonna think about some of the reasons why you may or may not see growth data for your students. And that past sequence is one reason, but let's think about some of the other reasons here. So you will see for your students, if you're downloading the data, and you're looking at the data. If you have students who have reading and math SOL tests, not the V-test, the SOL test; they have scores and they have two or more consecutive years of scores.

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Dr. Garner: You should see growth data. With the exception, there are always exceptions, and then there is an exception to the exception okay. So lets deal with the exception. Students who take the alternative, or the alternate testing, the V-test, okay. The scale is very different, and the numbers of students that take those tests is different. And so the decision was made to just do the student growth percentiles with the SOL tests. Students who take the alternate test will not have a growth percentile. Students who do not have two consecutive years, or more consecutive years of SOL scores, so you should look at that. Because that could be, that could be a reason why you do not see data cause some of your students.

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Dr. Garner: Students that have two or more years of advanced proficient scores. I was working with a school division several weeks ago where they had missing data, or they

didn't have data for their students for a couple reasons. One of them was transiency, and the other one was because they had a large percentage of students who were consistently scoring above 500, which is a good reason to not see the growth percentile. Okay, then you know, okay so the students are doing well, they don't have the growth percentile. There is several reasons for this, one is that at the upper levels, the very high levels of ability, the tests are not differentiating among learners with the degree of sensitivity that they could do in order to give the statistical model the fit, the criterion fit that was decided was the correct, appropriate statistic. And so that cut point was set. Now over time as the tests are changed, and differentiate between learners at the high end, you may see that business rule be revised.

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Dr. Garner: But for now if you have students that have two or more years at the past advanced level they won't have growth percentiles. Okay, they can still be added to the statewide data set, they're still in there, they're just not that information is not provided. Students who take the same level of SOL, same level of SOL test two years in a row and students that have state testing identifiers that have been merged together. This was something that actually we learned back in the fall when the state testing identifiers, if a student has two and they get merged, the testing record that goes along with that test identifier does not get merged. It stays separate, so if you have students that are cattywumpus, do you say cattywumpus around here? No, with the state testing identifier, and the test sequence you won't see the student growth percentile.

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Dr. Garner: And then finally students that have unusual test sequences, very unusual test sequences, and this is where there is the exception to the exception. So in Virginia, obviously you have common test taking patterns, but you have commonly uncommon test taking patterns. Okay, you have for example, obviously three, four and five, so you'd have a growth percentile association with the fourth grade and the fifth grade score. But then there is also a sufficient number of students across the state that do not only six, seven, eight, Algebra I, but then six, seven, Algebra I. And six, eight, Algebra I. How many of you have students that you know of that it's a little different, and you know it may be six, eight, Algebra I or six, seven, Algebra I. That's okay, there are sufficient numbers of students across the state who are also participating in that particular sequence to provide that statewide reference point. Okay, now obviously if you're doing, you know five, eight, Algebra I, that's not frequent enough to provide the right number of students.

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Dr. Garner: Okay, across the state though this comes from a sample dataset that ODU has, for the 2010-2011 school year. You'll see roughly seven in ten students, so 70% of the students who take the SOL test should have the growth percentiles. Now obviously that's going to look a little bit different in your division, and even from school to school, depending on where your school are at. You know in Norfolk we have some schools that are mostly military, and then we have other schools that there is very low percentages of military. And so obviously the ratio of students that you have data for, and students you don't is going to be different. But across the state of the almost half a million students that took the SOL math test across the state last year, almost 70% would have growth data, and 70% for reading. So that's just to give you a reference point when you're looking at your own data.

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Dr. Garner: So I mentioned at the beginning that different states have adopted the growth percentile, and most of them have categorized into three levels the growth percentile. And even you know Damien Betebenner's writing about the Colorado Growth Model, he talks about how at the individual level, the fine discrimination between you know one point or another point is not, is not maybe what the focus should be on. Don't worry about the 64 versus the 65, worry about the low versus the middle, middle versus the high. Worry about the really low low, versus the upper end low. Okay, so Virginia has decided to have low growth be the one through 34 growth percentile, remember somebody is always going to have a one. There is always gonna be a one, 35 to 65 is the moderate, or medium growth percentile. And then 66 through 99 would be the high growth okay.

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Dr. Garner: And just like I was saying, just remember that really there is little practical difference if you have student that's say at the 30 versus the 36, you know does that mean they're totally different students? Probably not in terms of their growth, now obviously you'd want to look at their achievement as well as their growth right, that's part of the take home message I hope you get from today is, look at the achievement but look at the growth. Look at the growth don't look at it in isolation, look at it with the achievement or the proficiency level. Okay, okay somebody at the back there asked me about access to the data. This is something that's been determined by VDOE that needs to be done at the local level, okay. So the data is available if you have access to the SSWS system then it's available to you, but I believe the permissions still have to be set within the division for you know if you would have access to the growth report application.

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Dr. Garner: Okay, so school division personnel you'll have the option of allowing that access at whatever level you would choose. And you can pull the data using different criteria. Okay, so you can pull it for different school years, you can pull it for different reporting windows, either for the end of the year or for the fall. You can pull it for different, one school or all the schools because it's attached to the teacher through the master schedule collection, you can pull it for all teachers versus individual teachers. Remember I said the box around the teacher evaluation question, and then you can pull it for math or reading, or both. Okay, and just to clarify if you have the report generated for, I'd better get this right, Spring 2011, it provides the teacher data for 2010-2011.

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Dr. Garner: If you pull it for the Fall 2011, now it's got this year's teacher associated with it, so you just have to bare in mind what you're looking at when you pull the report. Okay, now here is the eye test portion of the morning. [Laughter] I'm gonna quiz you on this. You have, you have a large green handout, okay. You want to have a look at that now, we'll go through that together. We're going to go through what the report will look like, and this may be of interest to you given that you're working with the tiered system of support, because you may want to be pulling particular students to look at, particular groups of students to look at. You know different, different reasons for selecting different subgroups, or different portions of your total report.

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Dr. Garner: So I'm gonna go through on the screen please you know feel free to use what's right in front of you here. This is called, what we call the annotated report. You know this is something it's on my office wall, it could be on your office wall, sleep with it under your pillow, however you want to make friends with it. Get to know it if you're gonna be the person that's looking this, it's annotated because the business rules are also manifest in the data that you see on here. So you don't have to memorize them, they're all right here. So the first portion we're gonna take this in slices, you have the current year information. So you have the division name, you have the division number, you have the school information. You have the teacher information, and you have the student information. Now you'll notice that students, individual students can have multiple lines of data. Okay, and the reason for that is we're looking historically.

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Dr. Garner: Okay so we're able to look third grade, fourth grade, fifth grade, sixth grade, seventh grade. Right now up to seven years worth of data. Okay, so one student and they're given different shading here so you can differentiate different students. It's not like that in real life. I wish it was, then you'd be able to see, but this is just so we can see it for illustration purposed. Now, somebody asked the question what happens if a student moves into my division? And they take the test and so I can see where they took the test before? Yes, you'll see where they took the test before. Will you see the teacher associated with that test? No, okay, so you'll see the school division you won't see that teacher, okay.

[Tape Ends]